WHAT IS CLAIMED IS:

1. A sintered cemented carbide body having increased resistance to plastic deformation comprising:

tungsten carbide;

a binder phase comprising at least one metal of the iron group or an alloy thereof; and

one or more solid solution phases wherein each one of the solid solution phases comprising at least one of the carbides and carbonitrides of a combination comprising zirconium, niobium, and tungsten.

2. The sintered cemented carbide body of claim 1 wherein one of said solid solution phases consists essentially of a carbide or carbonitride of a combination comprising zirconium, niobium and tungsten.

3. The sintered cemented carbide body of claim 1 wherein there being a single solid solution phase, and the single solid solution phase comprising of a carbide or carbonitride of a combination of zirconium, niobium and tungsten.

4. The sintered cemented carbide body of claim 1 wherein one of said solid solution phases comprises a carbide or carbonitride of a combination of zirconium, niobium and tungsten, and at least one or more of titanium, hafnium, vanadium, tantalum, chromium, and molybdenum.

5. The sintered cemented carbide body of claim 1 wherein there being a single solid solution phase, and the single solid solution phase comprising a carbide or carbonitride of a combination of zirconium, niobium, and tungsten, and at least one or more of titanium, hafnium, vanadium, tantalum, chromium, and molybdenum.

6. The sintered cemented carbide body of claim 1 wherein two or more different solid solution phases are present, each one of the solid solution

phases comprising a carbide or carbonitride of a combination of zirconium, niobium and tungsten, and at least one or more of titanium, hafnium, vanadium, tantalum, chromium, and molybdenum.

7. The sintered cemented carbide body of claim 1 wherein the binder phase comprises cobalt, a CoNi-alloy or a CoNiFe-alloy.

8. The sintered cemented carbide body of claim 7 wherein said binder phase additionally comprises one or more of chromium and tungsten.

9. The sintered cemented carbide body of claim 1 wherein said binder phase comprises between about 3 weight percent to about 15 weight percent of the total mass of said body.

10. The sintered cemented carbide body of claim 1 wherein the total contents of a carbide or carbonitride of a combination of zirconium, niobium and tungsten of said one or more solid solution phases comprise between about 1 weight percent and about 15 weight percent of the total mass of said body.

11. The sintered cemented carbide body of claim 1 wherein one of said solid solution phases comprises a carbide or carbonitride of a combination of zirconium, niobium and tungsten, and at least one or more of titanium, hafnium, vanadium, tantalum, chromium, and molybdenum, and the total content of the elements titanium, hafnium, vanadium, tantalum, chromium, and molybdenum does not exceed about 8 weight percent of the total mass of said body.

12. The sintered cemented carbide body of claim 11 wherein titanium comprises between about 1 weight percent and about 8 weight percent of the total mass of said body.

13. The sintered cemented carbide body of claim 11 wherein tantalum comprises between about 1 weight percent and about 7 weight percent of the total mass of said body.

14. The sintered cemented carbide body of claim 11 wherein hafnium comprises between about 1 weight percent and about 4 weight percent of the total mass of said body.

15. The sintered cemented carbide body of claim 1 wherein said body having a content mass ratio Nb/(Zr+Nb) equal to greater than about 0.5.

16. The sintered cemented carbide body of claim 1 wherein the content mass ratio Nb/(Zr+Nb) is greater than or equal to about 0.6.

17. The sintered cemented carbide body of claim 1 wherein said body further comprises an outermost zone being free of any solid solution phase, but binder enriched, up to a depth of about 50 μm from an uncoated surface of said body.

18. The sintered cemented carbide body of claim 17 having underneath of said binder enriched zone one single solid solution phase being homogeneous throughout said body except said binder enriched zone.

19. The sintered cemented carbide body of claim 17 having underneath of said binder enriched zone, two or more coexisting different solid solution phases showing a concentration gradient between the surface and the center of said body.

20. The sintered cemented carbide body of claim 1 wherein one or more wear resistant coating layers are applied to a surface of said body wherein the coating layers are applied by either physical vapor deposition or chemical vapor deposition.

21. A method of producing a sintered cemented carbide body comprising the steps of

(a) providing a powder mixture comprising tungsten carbide, a binder metal powder comprising at least one metal of the iron group or an

alloy thereof, and at least one of the carbides and carbonitrides of both, zirconium and niobium;

(b) forming a green compact of said powder mixture;

(c) vacuum sintering or sinter-HIP said green compact at a temperature of from 1400 to 1560 °C;

characterized in that in step (a) a powdered solid solution of the carbides or carbonitrides of zirconium and niobium is used to form said powder mixture.

22. The method of claim 21 wherein a solid solution of a carbide or carbonitride of a combination of zirconium and niobium having a mass ratio Nb/(Zr + Nb) equal to greater than about 0.5 is used as said powdered solid solution of a carbide or carbonitride of a combination of zirconium and niobium.

23. The method of claim 22 wherein a powdered solid solution of a carbide or carbonitride of a combination of zirconium and niobium having a mass ratio Nb/(Zr + Nb) greater than or equal to about 0.6 is used.

24. The method of claim 21 wherein the binder metal powder comprises one or more of cobalt powder, nickel powder and iron powder.

25. The method of claim 24 wherein said binder metal powder additionally comprises at least one of chromium and tungsten.

26. The method of claim 21 wherein said binder metal powder comprises between about 3 weight percent and about 15 weight percent of the total mass of said powder mixture.

27. The method of claim 21 wherein said powder mixture additionally comprises at least one carbide, nitride or carbonitride of one or more of titanium, hafnium, vanadium, tantalum, chromium, and molybdenum.

28. The method of claim 21 wherein said powdered solid solution of a carbide or carbonitride of a combination of zirconium and niobium comprises

between about 1 weight percent and about 15 weight percent of the total mass of said powder mixture.

29. The method of claim 21 wherein said powder mixture comprises at least one of the elements titanium, hafnium, vanadium, tantalum, chromium and molybdenum in an amount between about 1 weight percent and about 8 weight percent of the total mass of said powder mixture.

30. A cutting tool comprising:

a body comprising a rake face and a flank face wherein the rake face and the flank face intersect to form a cutting edge at the intersection thereof; and

the body comprising tungsten carbide, a binder phase comprising at least one metal of the iron group or an alloy thereof, and one or more solid solution phases each one of which comprising at least one of the carbides and carbonitrides of a combination comprising zirconium, niobium, and tungsten.

31. The cutting tool of claim 30 further including a coating on the body.

32. The cutting tool of claim 30 wherein the body comprises an outermost zone being free of any solid solution phase, but binder enriched, up to a depth of about 50 μm from an uncoated surface of said body.

33. The cutting tool of claim 32 having underneath of said binder enriched zone one single solid solution phase being homogeneous throughout said body except said binder enriched zone.

34. The cutting tool of claim 33 having underneath of said binder enriched zone, two or more coexisting different solid solution phases showing a concentration gradient between the surface and the center of said body.

35. A sintered cemented carbide body having increased resistance to plastic deformation comprising:

tungsten carbide;

a binder phase comprising at least one metal of the iron group or an alloy thereof; and

one or more solid solution phases wherein each one of the solid solution phases comprising at least one of the carbides and carbonitrides of a combination consisting of zirconium, niobium, and tungsten.